

Bre-Anna K. Owusu

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RESEARCH & TEACHING AREAS OF INTEREST

Attention | Child Development | Dyslexia | Learning Disorders | Memory | Music Cognition |

EDUCATION & TRAINING

- **PhD, Neuroscience** 2018 – 2025
McMaster University, Hamilton, Canada *Advisor:* Dr. Elisabet Service
- **Master of Science, Cognitive Neuroscience and Research Methods in Psychology** 2016 – 2017
Swansea University, Swansea, Wales *Advisors:* Drs. Toby Lloyd-d Jones & Hana Burianová
- **Bachelor of Science Honours, Psychology and Exceptionality in Human Learning** 2011 – 2015
University of Toronto, Toronto, Canada

RESEARCH & CONFERENCE FUNDING

- Conference Funding, Rac(e)ing Towards Inclusion in Academia and Industry *Institutional* \$3,250 2022
- International Merit Postgraduate Scholarship, Swansea University *International* \$4,000 2016 – 2017
- International Postgraduate Taught Excellence Scholarship, Swansea University *International* \$4,000 2016 – 2017

AWARDS & HONOURS

- J. Frank Yates Student Conference Award *International* \$1,000 2023
- Psychology, Neuroscience & Behaviour Graduate Research Day, Best Data Blitz Presentation *Institutional* \$75 2023
- Umoja Award, African Caribbean Faculty Association *Institutional* \$1,000 2022
- McMaster University Faculty of Health Sciences Plenary Graduate Student Leadership Award *Institutional* 2022
- McMaster University Faculty of Health Sciences Plenary Teaching Assistant Excellence Award *Institutional* 2021
- McMaster Student University Teaching Assistant of the Year Award* *Institutional* 2021
* Ranked Top 5
- McMaster University Faculty of Health Sciences Graduate Plenary PechaKucha Competition* *Institutional* 2021
*Ranked Top 3
- University of Toronto Admission Scholarship *Institutional* \$1,500 2011

PUBLICATIONS

- **Owusu, B. K.**, & Burianová, H. (2020). Transcranial direct current stimulation improves novel word recall in healthy adults. *Journal of Neurolinguistics*, 53, 1–9.
- Agrawal, T., Cui, A-X., Lense, M. D., Lopez, G., **Owusu, B. K.**, Schachner, A., Slevc, L. R., Swaminathan, S., & Vuvan., D. T. (2024). From Commitment to Action: Assessing the Impact of New Mentorship Programs to Promote Equity in the Society for Music Perception and Cognition. *Music Perception*, 41(4), 233–239.

Chapters in Books

- **Owusu, B.**, Dhanoa, J., Hylton, A., Ing, E., Mappanasingam, A., Patel, A., Pavlakos, R., & deBie., A. (2022). Student Voices from the Classroom, Concluding reflections on cultivating an environment where learning deeply matters. In A. de Bie, S. Baptiste, C.A. Grisé (Eds.). *Where learning deeply matters: Reflections on the past, present, and future of teaching at McMaster University*.
- Mighty, J., Braithwaite, A., Deng, J., Huang, S., Leacock, B., Lopes, V., MacDonald, M., Pérez, R. N., **Owusu, B.**, & Toulouse, P. (2022). Misalignment, Negotiation, and Compromise: The Challenging Process of Pursuing Equity, Diversity, and Inclusion in Higher Education. Invited chapter in J. Christensen Hughes, J. Mighty, D. Stockley and L. Young (Eds.). *Taking Stock 2.0: Transforming Teaching and Learning in Higher Education*.

Articles submitted, under review or in preparation

- **Owusu, B.**, Cannon, J., Pape, D., & Service, E. (in revision). Rhythmic priming may enhance verbal working memory in musicians and non-musicians. *Memory & Cognition*.
- **Owusu, B.**, Pape, D., Cannon, J., & Service, E. (in preparation). Effects of tempo and rhythmic priming on verbal working memory. *Status: being reviewed by co-authors*.

Artistic Contributions

Curator, *Racial Views*. KUNSTMATRIX Virtual Exhibition.

Contributors included: Harmata Aboubakar, Mariama Henry, Aleks Raymond, Paryse Reed, Amy Schranz, Selina Shi. [Exhibited artwork at KUNSTMATRIX](#)

ACCEPTED CONFERENCE POSTERS & PRESENTATIONS *student trainees are underlined*

Published Abstracts

- **Owusu, B.** (2021). The He(ART) of Dyslexia: How can listening to music improve verbal memory? Talk, NeuroSymposium. *McGill Journal of Medicine*, 20(1).

Conference Presentations

- **Owusu, B.**, & Service, E. (July 2023). Priming with musical rhythm enhances verbal working memory. Talk, Canadian Society for Brain, Behaviour, and Cognitive Science, Guelph, ON.
- **Owusu, B.**, * & Service, E. (Apr 2023). Let the Music Play: The beneficial effects of musical rhythms on verbal working memory. Talk, Psychology, Neuroscience & Behaviour Graduate Research Day, Hamilton, ON.

** Psychology, Neuroscience & Behaviour conference award, Best Data Blitz Presentation*

- **Owusu, B., Alnahhar, D., Campbell, J., & Service, E.** (Apr 2023). Let the Music Play: The beneficial effects of musical rhythms on verbal working memory. Poster, Student Research Day, Hamilton, ON.
- **Owusu, B., & Service, E.** (Nov 2022). Can rhythmic stimulation benefit verbal memory? Poster, NeuroMusic 18th Annual Conference, Hamilton, ON.
- **Owusu, B., & Service, E.** (Oct 2022). Rhythmic stimulation boosts memory for new word forms in children. Poster, Mental Lexicon, Niagara, ON.
- **Homiar, A., Owusu, B., & Service, E.** (Apr 2022). The influence of musical training on visuospatial working memory processing in musicians with dyslexia. Poster, Student Research Day, Hamilton, ON.
- **Owusu, B., & Service, E.** (Nov 2021). Can musical rhythm primes boost memory for new word forms in dyslexia? Poster, Psychonomic Society 62nd Annual Meeting, Virtual Meeting.
- **Owusu, B.** (May 2021). Music and Dyslexia: Please don't stop the music. Talk, Black Graduate Student Association, Virtual Meeting.
- **Boguslavski, L., & Owusu, B.** (Apr 2021). A plan for combining musical training and action video games as a therapeutic tool for dyslexia. Poster, Student Research Day, Virtual Meeting.
- **Owusu, B., & Service, E.** (Apr 2021). Music and Memory—Tunes for dyslexia. Talk, Student Research Day, Virtual Meeting.

OTHER PRESENTATIONS

- **Teaching Assistant Welcome.** (Sept 2022). Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching. Panelist on *Experienced TA Panel Discussion*. Hamilton, ON.
- **GenSTEM Conference.** (Dec 2021). WISE (McMaster Women in Science and Engineering). Youth outreach workshop co-presenter. Virtual Meeting.
- **Three Minute Thesis (3MT).** (June 2021). The He(ART) of Dyslexia: How can listening to music improve verbal memory? 6th edition of NeuroSymposium. Virtual Meeting.
- **Plenary Presentation*.** (May 2021). [The Cocktail Party Effect: Mixing rhythms for dyslexia](#). Virtual Meeting.
* Ranked Top 3 for best PechaKucha Presentation
- **GRADflix Competition*.** (March 2021). [Syncing' to the Beat of your Own Brain](#). McMaster University.
* Finalist

TEACHING EXPERIENCE

Course Instructor

- Child Development | McMaster University | Attendance: 87 undergraduate students June 2025 – Aug 2025
- Essential Theory in Teaching and Learning | McMaster University | Attendance: 35 graduates, postdocs, faculty, and staff Sep 2023 – Dec 2023
- Millennials, Music & the Mind | McMaster University | Attendance: 13 undergraduate students Sep 2019 – Nov 2019

Guest Lecturer

- Applied/Advanced Placement | Topic: *Supervisor Interviews* Oct 2020–2022
- Applied/Advanced Placement | Topic: *LinkedIn Networking* Jan 2018–2022
- Applied/Advanced Placement | Topic: *Mind Maps* Oct/Feb 2018–2022

Chapter Presentation

- Neuroscience NEUROSCI 700 | Attendance: 20 graduate students Topic: *Language, Thought, Affect and Learning* Nov 2018

Teaching Assistant

- Independent Study LIFESCI 4A03 | Professor: *Dr. Sunita Nadella* Sep 2018 – Apr 2022
- Research Practicum LIFESCI 3RP3 | Professor: *Dr. Sunita Nadella* Sep 2018 – Apr 2022
- Independent Project LIFESCI 4B09 | Professor: *Dr. Sunita Nadella* Sep 2018 – Apr 2022
- Independent Thesis LIFESCI 4C12/D15 | Professor: *Dr. Sunita Nadella* Sep 2018 – Apr 2022
- Applied/Advanced Placement* LIFESCI 3EP3/4EP6 | Professor: *Dr. Sunita Nadella* Sep 2018 – Apr 2022

* Awarded the Faculty of Health Sciences Plenary Teaching Assistant Excellence Award

* Awarded Rank of top 5 McMaster Student University Teaching Assistant of the Year Award

MENTORSHIP & CO-SUPERVISION

Graduate Mentorship

- Jonathan Lieberman, Neuroscience Sep 2021 – Apr 2022
Health Sciences Mentorship Program (HSMP)
- Olivia Turner, Neuroscience Sep 2020 – Apr 2021
Health Sciences Mentorship Program (HSMP)

Undergraduate Mentorship

- Renisha Rodriques, Life Sciences Sep 2021 – Apr 2022
Black Student Mentorship Program (BSMP)
- Hephzibah Ali, Health Sciences Sep 2020 – Apr 2021
Black Student Mentorship Program (BSMP)

Supervised Undergraduate Independent Project Students

- Ava Homiar, Life Sciences | Topic: *Temporal processing in dyslexic musicians* Jan 2022 – Apr 2022
- Lior Boguslavski, Life Sciences | Topic: *Video game music and dyslexia* Jan 2021 – Apr 2021
- Conan Hu, Psychology, Neuroscience & Behaviour | Topic: *Rhythm and amusia* Sep 2019 – Dec 2019

Co-Supervised Research Assistants

- Sophia De Mesa Feb 2023 – Feb 2024
- Chiara Malatesta Sep 2023 – Dec 2023
- Dana Alnahhar, Jacquelyn Campbell Jan 2023 – Apr 2023
- Ava Homiar, Jacquelyn Campbell Jan 2022 – Apr 2022

CV

- Abigail Almeida, Ava Homiar
- Anna Lui, Conan Hu, Daniela Andreadis, Jacquelyn Campbell, Lior Boguslavski, Louise Huang

Bre-Anna K. Owusu

Jun 2021 – Aug 2021

Sep 2020 – Apr 2021

EDITORIAL ACTIVITIES

Editorial Board

- Member | *ARiEAL Research Magazine*

May 2023 – Sep 2023

Peer Reviewing

- 50 Years of Stories | MacPherson Institute for Leadership, Innovation and Excellence in Teaching

2021 – 2022

SERVICE & COMMITTEE MEMBERSHIPS

International

- **Mentorship Committee Member**
Society for Music, Perception and Cognition (SMPC)

2021 – 2023

National

- **Conference Chair and Organizer**
Rac(e)ing Towards Inclusion in Academia and Industry
- **Research Assistant & [Webinar Moderator](#), EDI Task Force**
Society for Teaching and Learning in Higher Education (STLHE)
- **Member & Reading Tutor**
Learning Disabilities Association of Ontario (LDAO)

2021 – 2022

2021 – 2022

2020 – 2021

Institutional

- **Vice President**
African Caribbean Graduate Student Association (ACGSA), McMaster University
- **Adjudicator**
Life Sciences Interdisciplinary Research Symposia, McMaster University

2021 – 2022

2018 – 2022

Departmental

- **Scientific Advisory Committee (SAC) Working Group Member**
ARiEAL Research Centre

2021

WORK EXPERIENCE

- **Psychoeducational Assessor** | PeakMinds Psychology Services
- **Student Partner** | Paul MacPherson Institute for Leadership, Innovation and Excellence in Teaching, McMaster University, Hamilton, Canada
- **EEG Research Assistant** | Language, Memory & Brain

2025 – present

2021 – 2023

2021

Lab, McMaster University, Hamilton, Canada

Advisor: Dr. John Connolly

- **tDCS Research Intern** | College of Human and Health Sciences, Swansea University, Swansea, Wales

2017

Advisor: Dr. Hana Burianová

- **Research Assistant** | Infant and Child Studies Centre, Department of Psychology, University of Toronto, Mississauga, Canada

2015 – 2016

Advisors: Drs. Sandra Trehub & Laura Cirelli

- **Piano Instructor** | Primer levels to Professional

2008 – present

PROFESSIONAL DEVELOPMENT & TRAINING

- Teaching and Learning Scholar Certificate of Completion (100 hours) | Paul MacPherson Institute for Learning, Innovation and Excellence in Teaching 2022
- Teaching and Learning Foundations Certificate of Completion (36 hours) | Paul MacPherson Institute for Learning, Innovation and Excellence in Teaching 2022
- Instructional Skills Workshop (30 hours) | Paul MacPherson Institute for Learning, Innovation and Excellence in Teaching 2022
- TCPS 2: CORE Certificate 2021
- Certified Peer Reviewer Course | Elsevier Research Academy 2020
- R Programming Workshop 2016

PROFESSIONAL AFFILIATIONS

- Canadian Society for Brain, Behaviour and Cognitive Science | Psychonomic Society | Society for Music, Perception and Cognition | Canadian Open Parkinson Network

TECHNICAL EXPERTISE

- Hardware: tDCS systems
- Software: Audacity, E-Prime, Jamovi, PsychoPy, SPSS, SuperLab,